

Applicant: Hans-Christoph MAGEL
Docket No. R.307235
Preliminary Amdt.

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-11. (Canceled)

12. (New) A common rail injector for injecting fuel into a combustion chamber of an internal combustion engine, having an injector housing including a fuel supply line communicating with a central high-pressure fuel source outside the injector housing and with a pressure chamber inside the injector housing, from which pressure chamber, as a function of the position of a 3/2-way control valve, fuel subjected to high pressure is injected, the improvement wherein the control valve comprises a valve piston which is movable back and forth in the injector housing between a position of repose and an injection position, which valve piston is coupled hydraulically with a piezoelectric actuator that is subjected to the pressure from the high-pressure fuel source.

13. (New) The common rail injector as defined by claim 12, wherein the injector housing a hydraulic coupling chamber subjected to the pressure from the high-pressure fuel reservoir, and wherein the piezoelectric actuator is coupled hydraulically with the valve piston by way of said coupling chamber.

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14. **(New)** The common rail injector as defined by claim 12, further comprising a pressure face embodied on the valve piston and subjected constantly to high pressure from the fuel supply line.

15. **(New)** The common rail injector as defined by claim 13, further comprising a pressure face embodied on the valve piston and subjected constantly to high pressure from the fuel supply line.

16. **(New)** The common rail injector as defined by claim 12, wherein a first end of the valve piston defines the hydraulic coupling chamber, and a second end of the valve piston protrudes into a valve control chamber, which control chamber in the injection position of the valve piston is in communication with a fuel return and which in the position of repose of the valve piston is subjected to the pressure from the high-pressure fuel reservoir.

17. **(New)** The common rail injector as defined by claim 13, wherein a first end of the valve piston defines the hydraulic coupling chamber, and a second end of the valve piston protrudes into a valve control chamber, which control chamber in the injection position of the valve piston is in communication with a fuel return and which in the position of repose of the valve piston is subjected to the pressure from the high-pressure fuel reservoir.

18. **(New)** The common rail injector as defined by claim 14, wherein a first end of the valve piston defines the hydraulic coupling chamber, and a second end of the valve piston

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protrudes into a valve control chamber, which control chamber in the injection position of the valve piston is in communication with a fuel return and which in the position of repose of the valve piston is subjected to the pressure from the high-pressure fuel reservoir.

19. (New) The common rail injector as defined by claim 15, wherein a first end of the valve piston defines the hydraulic coupling chamber, and a second end of the valve piston protrudes into a valve control chamber, which control chamber in the injection position of the valve piston is in communication with a fuel return and which in the position of repose of the valve piston is subjected to the pressure from the high-pressure fuel reservoir.

20. (New) The common rail injector as defined by claim 16, further comprising a first sealing edge on the valve piston which interrupts a communication between the valve control chamber and the fuel return when the valve piston is in the position of repose and a second sealing edge on the valve piston which interrupts a communication between the high-pressure fuel reservoir and the valve control chamber in the injection position of the valve piston.

21. (New) The common rail injector as defined by claim 17, further comprising a first sealing edge on the valve piston which interrupts a communication between the valve control chamber and the fuel return when the valve piston is in the position of repose and a second sealing edge on the valve piston which interrupts a communication between the high-pressure fuel reservoir and the valve control chamber in the injection position of the valve piston.

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22. (New) The common rail injector as defined by claim 18, further comprising a first sealing edge on the valve piston which interrupts a communication between the valve control chamber and the fuel return when the valve piston is in the position of repose and a second sealing edge on the valve piston which interrupts a communication between the high-pressure fuel reservoir and the valve control chamber in the injection position of the valve piston.

23. (New) The common rail injector as defined by claim 19, further comprising a first sealing edge on the valve piston which interrupts a communication between the valve control chamber and the fuel return when the valve piston is in the position of repose and a second sealing edge on the valve piston which interrupts a communication between the high-pressure fuel reservoir and the valve control chamber in the injection position of the valve piston.

24. (New) The common rail injector as defined by claim 20, further comprising a valve piston guide portion embodied on the first end of the valve piston, the valve piston guide having a diameter somewhat less than the diameter of the first sealing edge.

25. (New) The common rail injector as defined by claim 24, wherein the diameter of the second sealing edge is somewhat less than the diameter of the valve piston guide portion.

26. (New) The common rail injector as defined by claim 24, wherein the valve piston is embodied in one piece.

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27. **(New)** The common rail injector as defined by claim 25, wherein the valve piston is embodied in one piece.

28. **(New)** The common rail injector as defined by claim 25, wherein the valve piston is embodied in two parts.

29. **(New)** The common rail injector as defined by claim 26, wherein the valve piston is embodied in two parts.

30. **(New)** The common rail injector as defined by claim 12, wherein the valve control chamber communicates with a valve member control chamber.

31. **(New)** The common rail injector as defined by claim 12, wherein the valve control chamber is in communication with a pressure booster control chamber.